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Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

Forty-fifth session
Geneva, 23 June- 2 July 2014
Item 6 (b) of the provisional agenda
Transport of gases: miscellaneous

Insertion of new and replacement ISO standards in 6.2.2

Transmitted by the International Organisation for Standardisation (ISO)[1]

Introduction

1. This paper proposes the following standards for inclusion in section 6.2.2 concerning UN pressure receptacles. These are:

ISO 11515:2013 *Gas cylinders – Refillable composite reinforced tubes of water capacity between 450 L and 3000 L – Design, construction and testing* and

ISO 10462:2013 *Gas cylinders – Acetylene cylinders – Periodic inspection and maintenance.*

The latter standard replaces the 2005 version.

2. At the forty-fourth session, the experts agreed to include composite construction as a method of construction for tubes and the ISO 11119 series of standards were included for tubes of up to 450 litres water capacity. ISO 11515:2013 covers the remaining water capacity range of 450 litres to 3000 litres.

3. The significant technical changes in ISO 10462:2013 are as follows:

(a) The external visual inspection has been revised;

[1] In accordance with the programme of work of the Sub-Committee for 2013-2014 approved by the Committee at its sixth session (refer to ST/SG/AC.10/C.3/84, para. 86 and ST/SG/AC.10/40, para. 14).

(b) The inspection of monolithic porous materials with regard to cracking, crumbling or cavitation is given in greater detail for better clarity. A new Annex C for the determination of the top clearance between the porous material and the cylinder has been added;

(c) Requirements for the removal and inspection of the cylinder valve have been removed but are given in other standards as normative references.

Since this standard replaces a previous edition, it is subject to the four year transition period as specified in the Guiding Principles for the 18th Revised Edition.

4. Clause 4.1 of ISO 10462 includes the following.

"However, for acetylene cylinders that are newly filled with porous material, it is recommended to carry out the first periodic inspection earlier. This first periodic inspection interval is recommended as follows:

(a) Non-monolithic porous material: two years;

(b) Monolithic porous material: three years."

Non-monolithic porous material is not allowed in the UN Model Regulations, so can be ignored. The reason for the early periodic inspection is that faults in the porous material appear in the early part of its life due to the shock loads in normal handling opening up discontinuities. Since this early test is a safety recommendation, it seems prudent to include this in the regulations so that all benefit from a harmonized safety practice. Proposal 3 suggests a way of including this requirement in P200.

Proposal 1

5. Insert a new last row in the table in 6.2.2.1.2 as shown below.

ISO 11515: 2013	Gas cylinders – Refillable composite reinforced tubes of water capacity between 450 L and 3000 L – Design, construction and testing	Until further notice

Proposal 2

6. In the table in 6.2.2.4 amend the row for ISO 10462:2005 and insert a new row beneath it as shown by new text in bold.

ISO 10462: 2005	Transportable cylinders for dissolved acetylene – Periodic inspection and maintenance.	Until ~~further notice~~ **31 December 2018**
ISO 10462: 2013	**Gas cylinders – Acetylene cylinders – Periodic inspection and maintenance.**	**Until further notice**

Proposal 3

7. In P200 (4) special packing provision "p"add the following new paragraph at the end.

"For UN 1001 acetylene, dissolved and UN 3374 acetylene, solvent free the first periodic inspection shall be no later than three years after the porous material was installed in the cylinder."